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09/857,491	06/06/2001	Toyokazu Sugai	1163-0340P	5202
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EXAMINER				
CHOWDHURY, SUMAIYA A				
ART UNIT		PAPER NUMBER		
2623				
NOTIFICATION DATE		DELIVERY MODE		
07/24/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary**Application No.**

09/857,491

Applicant(s)

SUGAI, TOYOKAZU

Examiner

SUMAIYA A. CHOWDHURY

Art Unit

2623

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 8-10 and 14-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8-10 and 14-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/02)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 8-10, and 14-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 8-10, and 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko (6505347) in view of Eyer (6160545).

As for claim 1, Kaneko teaches a data transmission device, in which electronic program guide (EPG) data associated with and multiplexed with broadcast program data is produced and transmitted, comprising:

Producing means for producing the EPG data, the EPG data including one or more tables corresponding to one or more types of tables, each of the one or more types of tables being determined in advance to include multiple constituent information elements (PAT, PMT; fig. 7-fig. 16, col. 12, lines 33-52, col. 13, lines 4-65, col. 15, lines 25-45, col. 17, lines 20-25, col. 19, lines 33-40); and

Transmitting means for transforming the EPG data produced by the producing means into a bit stream and transmitting the bit stream (TS packetizing circuit – fig. 4, col. 12, lines 33-53, col. 13, lines 12-43); wherein

Wherein the data transmission device is configured to:

Calculate an amount of information that would be included in the EPG data if the producing means produced the one or more tables in the EPG data to include all of the constituent information elements of the corresponding one or more types of tables, determine whether the calculated amount of information in the EPG data would exceed an amount necessary to repeatedly send out at least one type of table in the EPG data via the bit stream at a frequency equal to or higher than a predetermined sending-out frequency of the at least one type of table, while transmitting the bit stream at a rate equal to or lower than a predetermined bit rate, and when the calculated amount of information is determined to exceed the necessary amount, perform the following: omit information such that the amount of information in the EPG data is decreased so that the amount of information in the EPG data is less than or equal to the necessary amount (Kaneko teaches when the amount of data of each table is greater than a preselected threshold value (e.g. 25 MB), sub-tables thereof are divided into sub-groups. As discussed above, Kaneko teaches transmitting the EPG data according to a bit rate equal to or lower than a prescribed upper limit (desired data rate; col. 12, lines 33-52). Kaneko additionally teaches the EPG data is sent out at a frequency equal to or higher than a specific sending-out frequency for at least one type of table. The tables are grouped together, and the table having the most packets is extracted for an object

of determination of the transmission cycle (frequency). This results in an decreased number of objects used to determine the transmission cycle, thereby improving an operation speed of the control data generator and also decreases the number of times the bandwidth or transmission cycle is changed, thus decreasing an operation load of the control data outputting circuit (col. 15, lines 48-56). For example, referring to fig. 14, in the sub-table 2, two data elements 2-1 and 2-2 are transmitted from 23:00 to 23:25. Since 2-2 has is greater in amount of data, it is selected as the object of determination of the transmission cycle between 23:00 and 23:25. In other words, the transmission cycle between 23:00 and 23:25 is determined assuming that the data element 2-2 is to be transmitted from 23:00 to 23:25 (col. 15, line 64-col. 16, line 33).).

However, Kaneko fails to teach:

Omit at least one of the constituent information elements from at least one of the tables in the produced EPG data;

Transmit the EPG data including the at least one of the tables from which the at least one of the constituent elements has been omitted.

In an analogous art, Eyer teaches:

The IRD performs filtering to determine which portion of the IPG data, programming services, and channel map data is needed. IPG data for IPG regions other than the specific geographic region to which the IRD is assigned is not needed and therefore can be discarded. After filtering the received IPGs, the specific geographic region IPG is then transmitted to the display screen to enable a user to select programming (col. 6, lines 59-67, col. 8, lines 42-64, col. 10, lines 18-30, lines 52-56).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Kaneko's invention to include the abovementioned limitation, as taught by Eyer, for the advantage of minimizing the processing in each IRD, thereby reducing IRD cost.

As for claim 8, Kaneko teaches wherein the multiple types of tables are produced by the producing means by adjusting the amounts of information in the types of tables according to a plurality of priorities of the types of tables to allow the bit stream to be transmitted at a bit rate equal to or lower than the predetermined bit rate and allow the tables to be sent out at frequencies equal to or higher than specific sending-out frequencies of the types of tables (Col. 14 lines 18-67, Col. 15 lines 1-47 The version generator determines, based on priority, whether or not to produce a new version of a table. Producing a different version of a table is adjusting the amount of information in the table. This process is directly related to the determination of transmission cycles).

As for claim 9, Kaneko teaches wherein multiple types of tables are produced by the producing means, and when the calculated amount of information exceeds the necessary amount, the data sending-out device further adjusts the amounts of information in the types of tables according to a plurality of sending-out frequency reduction rates of the types of tables to allow the bit stream to be transmitted at a bit

rate equal to or lower than the predetermined bit rate and allow the tables to be sent out at frequencies equal to or higher than specific sending-out frequencies of the types of tables (Col. 15 lines 20-67, Col. 16 lines 1-67, Col. 17 lines 1-27 If a sub-table, which is a type of table, contains too much data, it is divided into sub-groups. Dividing into sub-groups is adjusting the amount of information in the type of table).

As for claim 10, Kaneko teaches wherein when the calculated amount of information exceeds the necessary amount, the producing means adjusts the amounts of information in the types of tables according to a plurality of sending-out frequency reduction rates of the types of tables to allow the bit stream to be transmitted at a bit rate equal to or lower than the predetermined bit rate and allow the tables to be sent out at frequencies equal to or higher than the specific sending-out frequencies of the types of tables (Col. 15 lines 20-67, Col. 16 lines 1-67, Col. 17 lines 1-27 If a sub-table, which is a type of table, contains too much data, it is divided into sub-groups. Dividing into sub-groups is adjusting the amount of information in the type of table).

As for claim 14, Kaneko teaches wherein after the one or more tables are produced by the producing means, the producing means is caused to again produce the one or more tables with an adjusted amount of information in cases where the transmitting means determines that it is impossible to transmit the bit stream at a bit rate equal to or lower than the prescribed upper limit bit rate or it is impossible to send out

the at least one type of table at a frequency equal to or higher than the specific sending-out frequency (Col. 14 lines 32-46 Tables are continuously produced as information is updated, so tables are "again produced" in all cases).

As for claims 15 and 16, Kaneko teaches wherein the amount of information to be included in the EPG data is calculated prior to the production of the at EPG data, and the EPG data is produced by the producing means by adjusting the amount of information to be included in the EPG data to allow the bit stream to be transmitted at a bit rate equal to or lower than the predetermined bit rate and to allow the at least one type of table to be sent out at a frequency equal to or higher than the specific sending-out frequency (Col. 17 lines 10-27 If it is calculated that a sub-table, which is a type of table, contains too much data, it is divided into sub-groups. Dividing into sub-groups is adjusting the amount of information in the type of table). As discussed above in claim 1, Eyer teaches omitting elements from the receiving IPG data.

As for claim 17, Kaneko teaches wherein the amount of information to be included in the EPG data is calculated prior to the production of the EPG data, and the EPG data is produced by the producing means by adjusting the amount of information to be included in the EPG data to allow the bit stream to be transmitted at a bit rate equal to or lower than the predetermined bit rate and to allow the at least one type of table to be sent out at a frequency equal to or higher than the specific sending-out

frequency (Col. 17 lines 10-27 If a sub-table, which is a type of table, contains too much data, it is divided into sub-groups. Dividing into subgroups is adjusting the amount of information in the type of table). As discussed above in claim 1, Eyer teaches omitting elements from the receiving IPG data.

As for claims 18-20, Kaneko teaches wherein, prior to the production of at least one type of table, the amount of information for each type of table information in the EPG data for which the amount of is not predetermined is detected and added to a summed value in the calculation of the amount of information, the amount of information for each type of table information in the EPG data for which the amount is predetermined is read out from a record and is added to the summed value in the calculation of the amount of information, and the amount of information in the EPG data is calculated (Col. 17 lines 10-15. In both cases, (whether the amount of electronic program guide information is predetermined or not) the amount of information in each type of table is added to a summed value prior to the production of each type of table. This is equivalent to knowing a cumulative amount of information in a table when the tables are produced. The amount of information in one of Kaneko's table is a cumulative amount of information).

As for claim 21, Kaneko teaches the data sending-out device wherein:

The producing means produces multiple types of tables –col. 12, lines 32-52, and

When the amount of information in the EPG data exceeds the necessary amount to achieve the predetermined bit rate and the sending out frequency, the amount of information in the EPG data is decreased according:

Relative priorities (first version number) of the types of tables (When a given switching time is reached, the data elements of each tables to which a first version number is assigned are first transmitted. Clearly, based on priority, data is transmitted in a sequenced order – col. 17, lines 27-35).

As for claim 22, Eyer teaches:

Wherein the amount of information in the EPG data is decreased by omitting a constituent information element of relative low importance compared to other constituent information elements. As discussed above in claim 1, Eyer teaches where IPG information which does not pertain to the user's geographic region is deleted. Such information is considered to be of low relative importance.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUMAIYA A. CHOWDHURY whose telephone number is (571)272-8567. The examiner can normally be reached on Mon-Fri, 9-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2623

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